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THE NAVAJO NATION

JONATHAN NEZ | PRESIDENT MYRON LIZER | VICE PRESIDENT

January 24, 2020

Chairman Robert "Bob" Burns
Commissioner Sandra Kennedy
Commissioner Boyd Dunn
Commissioner Justin Olson
Commissioner Leah Marquez Peterson

Re: Tucson Electric Power Company Rate Case, Docket No. E-01933A-19-0028.

Dear Commissioners:

I write today as the President and representative of the Navajo Nation (the Nation) to provide comments in Tucson Electric Power Company's ongoing rate case before the Arizona Corporation Commission (ACC), Docket No. E-01933A-19-0028. The Nation appreciates this opportunity to describe the economic impacts that the closure of coal plants in the Southwest have had on our communities, and to propose that the Commission take several steps – including the adoption of Just Transition Funding – to address these impacts.

I. Introduction

Tucson Electric's rate case offers a profound opportunity for the Arizona Corporation Commission to begin addressing the need for a just transition for the Navajo Nation and other coal impacted communities. For decades, the Navajo Nation has been host to coal-fired power plants, including the Navajo Generating Station, that provided inexpensive power to residents of Phoenix and Tucson, employed thousands of Navajos in good paying jobs and became a stable source of revenue to the Nation. However, as the state's utilities begin to pivot their energy portfolios away from coal, the Navajo Nation is faced with significant economic repercussions. At the same time, the Nation sees great potential to become a leader in the development of renewable energy projects. We would like to partner with the Arizona Corporation Commission, utility companies, and other energy stakeholders to create a glidepath to recovery in the wake of coal plant closures, and to lead on clean energy.

The Arizona Corporation Commission should consider our recommendations to ensure the Navajo people can move forward on a secure economic foundation. These recommendations include, among other items, the establishment of a Just Transition Fund for assisting the Nation and coal impacted communities during this time of tremendous change; a requirement that utilities procure renewable energy from the Nation; and the establishment of a minimum notification period that would provide coal impacted communities enough time to prepare for future coal plant closures. A just transition for the Navajo Nation—and all coal-impacted communities—is a vital component of the transition to a cleaner electric generating fleet.

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II. Arizona Utilities and Tucson Electric Specifically Have Heavily Relied on Navajo-Based Coal Capacity

Affordable, reliable coal-fired generation has been an essential source of electricity for Arizona over the last six decades to supply a growing population and economy. Arizona utilities have invested in more than 6,000 MW of coal capacity across three plants at varying ownership stakes—the recently closed Navajo Generating Station (NGS), Four Corners Power Plant (FCPP or Four Corners) and San Juan Generating Station (SJGS or San Juan)—on or very close to the Navajo Nation.

For decades, the three plants played an essential role in providing reliable, affordable electricity to population centers across the state. Between 2010 and 2018, even as environmental regulatory pressure on the three coal plants intensified and competition from renewables and natural gas began in earnest, output from NGS, FCPP and SJGS accounted for almost a quarter of average annual Arizona retail electricity sales. The proportion of electricity sold by Arizona utilities with stakes in NGS, SJGS and FCPP is likely even higher.

Estimated Contribution of Navajo Generating Station, Four Corners Power Plant and San Juan Generating Station as a Portion of Total Statewide Electricity Sales, 2010-2018[1]

Year	Total Arizona Retail Electricity Sales (GWh)	Generation from NGS, FCPP and SJGS for Arizona Utility Owners (GWh)	% of Total Arizona Retail Electricity Sales
2010	72,833	21,617	29.7%
2011	74,944	22,261	29.7%
2012	75,063	17,206	22.9%
2013	75,662	20,530	27.1%
2014	76,298	16,540	21.7%
2015	77,349	21,152	27.3%
2016	78,238	15,346	19.6%
2017	77,646	16,294	21.0%
2018	78,346	15,334	19.6%
Average	76,264	18,476	24.3%

The historical contribution of Navajo-based coal generation to meeting downstate electricity demand is likely even more pronounced than data from the last decade alone would indicate given the centrality of coal to Arizona's historical generating portfolio.

Tucson Electric Power has, for decades, relied on Navajo-based coal output to meet its generation and reliability needs. At their peak, TEP's ownership stakes in NGS, FCPP and SJGS—almost 620 MW of capacity—accounted for almost 50% of the utility's total coal capacity.[2] Given that coal plants run at high capacity factors, coal-fired output accounted for

[1] Energy Information Administration Electric Power Annual, EIA Form 923. Calculated by taking total plant output and assigning an "Arizona utility share" based on ownership stakes for SRP, APS and TEP and multiplying that share by total annual generation. This accounts for downsizing at FCPP and SJGS in 2013 and 2017 by modifying the AZ utility share based on updated ownership stakes.

[2] TEP 2014 IRP: https://www.tep.com/doc/planning/2014-TEP-IRP.pdf

almost two-thirds of the utility's annual generation as recently as 2017.[3] Even as TEP made a concerted effort to diversify its generating portfolio and Four Corners and San Juan shut units to comply with environmental regulations, the utility maintained a 10% stake across the three coal plants through the end of 2019.

Tucson Electric's Peak and Reduced Coal Capacity Share at NGS, FCPP and SJGS (MW)[4]

Plant Name	Nameplate Capacity (MW)	Reduced Capacity (MW)	Peak TEP Share (MW)	2019 TEP Share (MW)
Navajo Generating Station	2,250	2,250	168	168
Four Corners Power Plant	2,040	1,540	110	110
San Juan Generating Station	1,848	847	340	170
Total	6,138	4,637	618	448

III. The Coal Industry Has Been a Vital Source of Revenue for the Navajo Nation

The three power plants and associated mines have provided an essential source of economic activity for the Navajo Nation. A significant majority of the workers employed at the power plants and nearby mines are and were Navajo, providing well-paying jobs that also offered meaningful health and retirement benefits.

Property tax, lease and coal royalty revenues have also been a major source of revenue for the Navajo General Fund. In fact, aggregate tax, lease and royalty revenues from NGS, FCPP and the two associated mines account for more than half of the Navajo Nation's budget.[5] The plants also provide tax revenues for Arizona and New Mexico counties. Analysis from Northern Arizona University's Center for American Indian Economic Development suggests NGS provided an estimated $6.9 million in tax revenue to Coconino County, the county's special taxing districts and the city of Page for FY2019.[6]

Salaries from NGS and FCPP were and are typically in excess of $100,000/year; including retirement and health benefits brings the average closer to $150,000/year. Those well-paying jobs have provided employees the ability to support their immediate and extended families. These jobs are irreplaceable on the Navajo Nation and this loss will have a significant impact on community members.

The economic impact of the plants and mines exceeds tax receipts and wage payments, acting as a multiplier to regional economic growth as local businesses contracted with the facilities and

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[3] TEP 2017 IRP: https://www.tep.com/doc/planning/2014-TEP-IRP.pdf

[4] TEP IRPs

[5] Albuquerque Journal. "Coal's decline in power production hits Navajo Nation hard." August 2018. https://www.abqjournal.com/1210759/coals-decline-in-power-production-hits-navajo-nation-hard.html

[6] Elliott Cooley and Rebecca Ruiz. "NGS BASELINE CONDITIONS, 'A SURVEY OF THE EXISTING LITERATURE SURROUNDING ECONOMIC CONDITIONS RELATED TO THE NAVAJO GENERATING STATION AND KAYENTA MINE COMPLEX'". April 2019. Pg. 8. https://in.nau.edu/wp-content/uploads/sites/212/NGS-Baseline-Economic-Impacts-summary-4-11-2019.pdf

workers invested in the local economy. A 2013 study estimates NGS and the Kayenta mine would have provided almost $520 million in total direct and indirect economic benefits in 2020.[7] All told, the three plants and related mines employed more than 1,500 Navajo workers and were responsible for an estimated 4,300 jobs across northeastern Arizona and northwestern New Mexico—even after generating capacity was reduced at FCPP and SJGS.[8]

Total Direct and Indirect Employment at the Three Coal Power Plants and Associated Mine Facilities[9]

Complex Name	Total Employees	Navajo Employees	Estimated Associated Employment
Navajo Generating Station and Kayenta Mine	700	600	1,600
Four Corners Power Plant and Navajo Mine	800	640	1,760
San Juan Generating Station and San Juan Mine	550	275	950
Total	2,050	1,515	4,310

The closure of NGS will have significant negative consequences for the Navajo Nation's economy. My Administration is already responding to a $30-50 million dollar shortfall in Fiscal Year 2021 due to anticipated reductions in power plant and mine related revenues, which will negatively impact spending on economic and community development projects. The scale of that impact is consistent with the estimated result of the partial closures at FCPP in 2013 and SJGS in 2017. According to a 2017 Highland Economics report, the reduced plant and mine output negative impacted northwestern New Mexico's economy by more than $200 million/year.[10]

IV. Coal-Related Economic Benefits to the Navajo People Will Decline Dramatically in the Future

Coal-related economic activity is unlikely to stabilize after the closure of Navajo Generating Station. The remaining two units at San Juan Generating Station are scheduled to close by 2022 unless a new buyer intervenes. That closure could slash 1,500 direct and indirect jobs and hundreds of millions of dollars in aggregate economic benefits to the Navajo Nation and northwestern New Mexico.[11]

Likewise, there are reasons to believe the Four Corners Power Plant could face similar pressures. First, the plant's coal supply contract expires in July 2031,[12] providing an offramp for owners to

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[7] ASU Seidman Institute. "NAVAJO GENERATING STATION & KAYENTA MINE: An Economic Impact Analysis for the Navajo Nation," pg. 1.

[8] Albuquerque Journal.

[9] Albuquerque Journal and Highland Economics. "Regional Economic Assessment & Strategy for the Coal Impacted Four Corners Region." February 2017. http://www.nwnmcog.com/uploads/1/2/8/7/12873976/final_highland_economics_report_2017.pdf; FCPP and Navajo mine indirect jobs figure utilizes the low-end multiplier supplied by the Highland Economics Report, which was based on FCPP and Navajo mine being fully operational

[10] Highland Economics. "Regional Economic Assessment & Strategy for the Coal Impacted Four Corners Region."

[11] Albuquerque Journal.

[12] TEP Preliminary 2019 IRP. Appendix A, "Existing Resources" https://www.tep.com/wp-content/uploads/2019/07/TEP-Preliminary-Integrated-Resource-Plan-070119-FINAL-Version-2.pdf

shut down the plant even though the lease runs through 2041.[13] Second, Public Service Company of New Mexico (PNM) and TEP have both made regulatory filings indicating they will not extend their stakes at FCPP (a combined 20% of the plant's output) when they expire in 2031.[14] Third, a 2019 study by Strategen consulting suggests closing Four Corners and utilizing the freed-up transmission capacity for renewable resources could save Arizona ratepayers hundreds of millions of dollars in avoided costs.[15]

Critically, all three of the power plants may retire well ahead of the end of their useful lives, erasing billions of dollars in anticipated economic benefits for the Navajo Nation and counties in northeastern Arizona and northwestern New Mexico.

Planned and Actual Retirement Years for Navajo Generating Station and San Juan Generating Station[16]

Plant Name	Initially Planned Retirement Year	Actual Retirement Year	Difference
Navajo Generating Station	2044	2019	-25
San Juan Generating Station	2053	2022	-31

Recent utility announcements suggest another tranche of coal-fired generation on or near the Navajo Nation will also retire well ahead of schedule. First, Tri-State Generation and Transmission announced earlier this month it will retire the 253 MW Escalante Generating Station near Prewitt, New Mexico by the end of 2020.[17] As recently as 2015, however, Tri-State projected Escalante's useful life to run through 2057.[18]

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[13] Office of Surface Mining Reclamation & Enforcement. "Record of Decision: Four Corners Power Plant and Navajo Mine Energy Project." July 2015. https://www.wrcc.osmre.gov/Initiatives/fourCorners/documents/ROD/RecordofDecisionFCPP.pdf

[14] Tucson Electric Power and UNS Electric, Inc., "Response to the Notice of Inquiry - Review, Modernization and Expansion of the Arizona Renewable Energy Standard and Tariff Rules and Associated Rules Docket No. E-00000Q-16-0289," April 23, 2018. pg. 4; And Utility Dive. "New Mexico regulators approve PNM plan to phase out coal by 2031." December 2018. https://www.utilitydive.com/news/new-mexico-regulators-approve-pnm-plan-to-phase-out-coal-by-2031/544859/

[15] Strategen Consulting. "Arizona Coal Plant Valuation Study: Economic assessment of coal-burning power plants in Arizona and potential replacement options." September 2019. https://static1.squarespace.com/static/571a88e12fe1312111f1f6e6/t/5d812344c4254f2f93f21e96/1568744263083/AZ+Coal+Valuation+Study.pdf

[16] "Initially Planned Retirement Year" refers to approved useful life; NGS useful life from National Renewable Energy Laboratory. "Navajo Generating Station & Federal Resource Planning Volume 1: Sectoral, Technical, and Economic Trends." November 2016. pg. 1. https://www.nrel.gov/docs/fy17osti/66506.pdf; SJGS useful life projection from S&P Global. "Update: PNM resource plan, including coal plant closure, approved in New Mexico." December 2018. https://www.spglobal.com/marketintelligence/en/news-insights/trending/5rhteNQt--mEIldTCunD2A2

[17] Utility Dive. "Tri-State to shut New Mexico, Colorado coal plants by 2030, but move may not satisfy unhappy members." January 2020. https://www.utilitydive.com/news/tri-state-to-shut-new-mexico-colorado-coal-plants-by-2030-but-move-may-no/570163/

[18] Tri-State Generation and Transmission Association, Inc. "Integrated Resource Plan/ Electric Resource Plan." October 2015. https://www.tristategt.org/sites/tristate/files/PDF/resourceplan/2015%20Electric%20resource%20plan.pdf

Second and also in January, Oregon-based utility PacifiCorp reported plans to shutter the 395 MW Unit 4 at Cholla Generating Station near Joseph City, AZ.[19] Notably, PacifiCorp has accelerated the Unit 4 retirement date by 15 years.[20] APS has long planned to shutter Cholla Units 1 and 3 by 2024, so PacifiCorp's Unit 4 decision will prompt the plant to close 10 years ahead of schedule.

Third, Salt River Project's board voted this month to conclude operations at the 773 MW Coronado Generating Station near St. Johns Arizona by 2032.[21]

Collectively, more than 1,400 MW of nameplate coal capacity will retire ahead of schedule.

Planned and Actual Retirement Years for Cholla Unit 4, Escalante Generating Station and Coronado Generating Station

Plant Name	Initially Planned Retirement Year	Actual Retirement Year	Difference
Cholla Unit 4	2035	2020	-15
Escalante Generating Station	2057	2020	-37
Coronado Generating Station	Not Set	2032	N/A

The plant closures are likely to have a significant negative economic impact on the social and economic well-being of the Navajo Nation, northeastern Arizona and northwestern New Mexico. All three plants are on or very close to the Navajo Nation, employ Navajo workers, and provide tens of millions of dollars in local economic impact each year.[22] The retirements are also likely to prompt layoffs at the El Segundo mine in New Mexico, which will lose three of its four main demand sources.[23]

V. The Navajo People Have Borne the Environmental and Health Costs of Coal Power Generation

One of the central reasons in the agreement to build coal-fired power plants on or near the Navajo Nation was local economic development: Power plants and mines were supposed to provide stable income to the Nation and our people that would, over time, help close the

[19] KTAR. "Power company to shut generator at Arizona coal-fired plant early." January 2020. https://ktar.com/story/2910053/power-company-to-shut-generator-at-arizona-coal-fired-plant-early/

[20] Institute for Energy Economics and Financial Analysis. "Power company to shut generator at Arizona coal-fired plant early." January 2020. https://ieefa.org/pacificorp-to-close-unit-4-at-arizonas-cholla-coal-plant-in-2020-15-years-early/

[21] White Mountain Independent. "Another Cholla unit shutting down, Coronado operating until 2032." January 2020. https://www.wmicentral.com/news/navajo_county/another-cholla-unit-shutting-down-coronado-operating-until/article_0b12bd2f-2672-577b-a18b-faa5d3b85a6f.html

[22] New Mexico State Legislature. "House Memorial 72: Escalante Generating Station." 2018. https://www.nmlegis.gov/handouts/ERDT%20110617%20Item%208%20House%20Memorial%2072%20-%20Escalante%20Generating%20Station.pdf

[23] Amigos Bravos. "The Water-Energy Nexus in New Mexico." 2016. https://nmelc.org/wp-content/uploads/2018/08/180824-Amigos-Bravos-Attachment-1-WEN-Report.pdf

immense gap in economic opportunities between those living on Navajo Nation and the average American.[24]

However, the Navajo Nation continues to rank behind Arizona and New Mexico averages in numerous economic, health and educational attainment indicators.[25] One such indicator being that despite the proximity to the Navajo Generating Station and the Central Arizona Project's canal, 10% of Navajo Nation residents[26] do not have reliable electricity and about 40% do not have running water.[27]

Although gains in Navajo welfare have certainly been made over the last several decades, it would be a mistake to attribute those advances to the coal industry alone. Though the coal industry has given much in terms of jobs and revenues, it has caused meaningful problems via the immense environmental and public health costs of mining and power generation.

In 2018 alone, the three power plants emitted tens of thousands of tons of EPA-regulated pollutants, including the precursors to acid rain and ozone, and toxic heavy metals.

Crucially, these annual emissions are from plants operating at reduced capacity and with advanced pollution control technologies. However, for many years, the plants operated without scrubbers, baghouses or other pollution controls; accordingly, the cumulative emission totals are enormous, annually well above the 2018 rate, and primarily dispersed over the Navajo Nation.

Navajo Nation residents suffer much higher rates of illnesses scientifically linked to the byproducts of coal-fired generation. The EPA has noted a doubling in reported cancer rates since the three plants began operating, and the Clean Air Task Force suggested that the emissions from NGS were responsible for 12 premature deaths in 2012 alone.[28] The Navajo Nation contends with a reported asthma rate of 20%—about twice the national average—likely due to coal power generation.[29]

Unfortunately, there has never been a comprehensive study on the Navajo Nation to evaluate the long-term health effects of exposure to the byproducts of coal-fired generation. An extension and

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[24] "HEARING BEFORE THE UNITED STATES COMMISSION ON CIVIL RIGHTS, HEARING HELD IN WINDOW ROCK, ARIZONA October 22-24, 1973, Volume II: Exhibits." Pgs. 508, 597-598, 663 and 773

[25] "Direct Testimony of Nicole Horseherder on behalf of The San Juan Citizens Alliance, the Black Mesa Water Coalition, Diné CARE, and TO NizhOni Ani ("Citizen Groups")," in ACC Docket No. E-01933A-19-0028, pg. 15

[26] Laurel Morales. "For Many Navajos, Getting Hooked Up To The Power Grid Can Be Life-Changing." May 2019. https://www.npr.org/sections/health-shots/2019/05/29/726615238/for-many-navajos-getting-hooked-up-to-the-power-grid-can-be-life-changing

[27] US News and World Report. "Navajo Nation Reservation in Need of Running Water." May 2017 https://www.usnews.com/news/best-states/arizona/articles/2017-05-20/navajo-nation-reservation-in-need-of-running-water

[28] ProPublica. "End of the Miracle Machines: Inside the Power Plant Fueling America's Drought." June 16, 2015. https://projects.propublica.org/killing-the-colorado/story/navajo-generating-station-colorado-river-drought

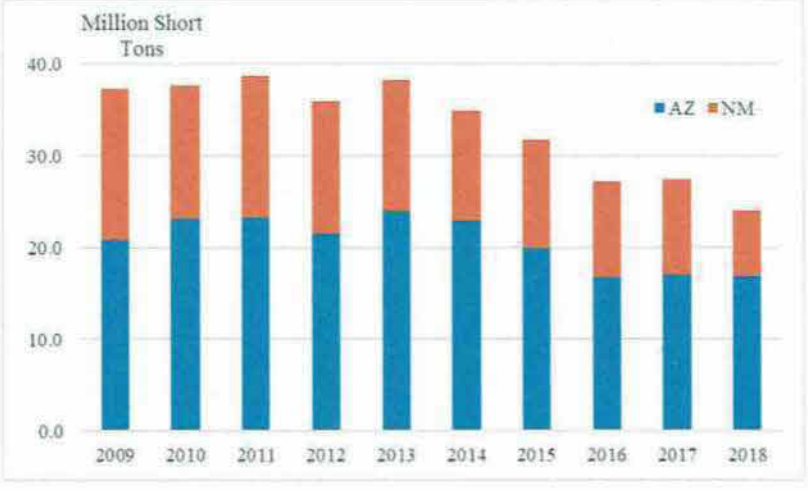
[29] Allergic Living. "$8 Million Grant Aims to Improve Asthma Control Among Children in Navajo Nation." October 18, 2018. https://www.allergicliving.com/2018/10/18/8-million-grant-aims-to-improve-asthma-control-among-children-in-navajo-nation/

broadening of the Navajo Birth Cohort Study may provide some insight into those epidemiological impacts, but the results are several years away at the earliest.[30]

VI. The Coal Industry is Facing a Protracted, Secular Decline Driven by Competitive Economic Forces

The factors driving Navajo Generating Station and San Juan Generating Station into premature retirement are not unique to the Navajo Nation. Power sector coal demand in Arizona and New Mexico declined by 13.2 million short tons (-35.4%) between 2009 and 2018; that downturn will undoubtedly accelerate due to the end of NGS-related operations and the planned 2022 retirement of SJGS.

Combined Arizona and New Mexico Power Sector Coal Demand by Year, 2009-2018 (Million Short Tons)[31]



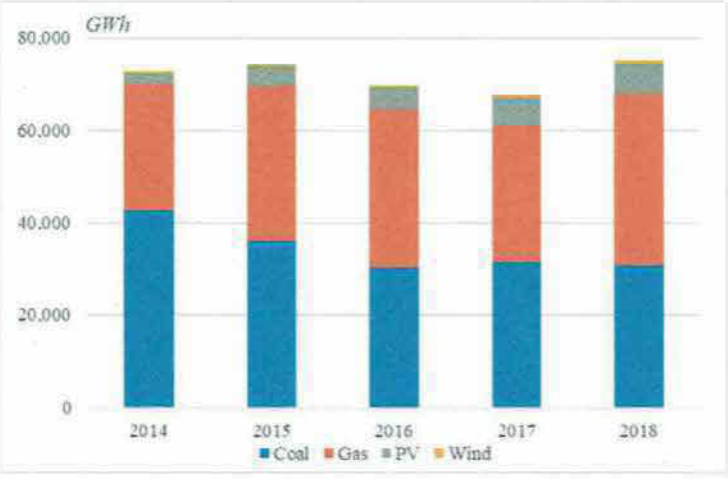
Declining power sector coal demand has been paired with significant increase in gas-fired and renewable generation. Annual gas-fired generation in Arizona increased more than 35% between 2014-2018, while combined utility-scale and rooftop solar output climbed a remarkable 161% over the same period.

Annual Arizonan Output from Selected Generation Resources, 2014-2018 (GWh)[32]

[30] Navajo Times. "Birth Cohort Study to continue, expand with new grant." January 11, 2018. https://navajotimes.com/reznews/birth-cohort-study-continue-expand-new-grant/

[31] EIA Annual Coal Report 2010-2018.

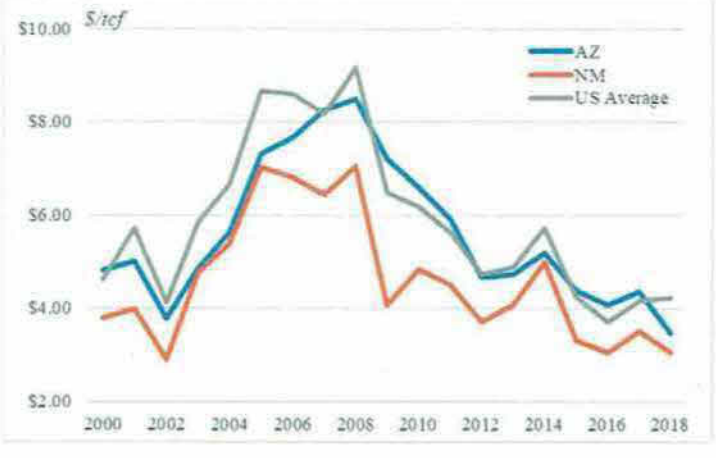
[32] EIA Electric Power Annual 2015-2018.



That is not a coincidence: Arizona has been subject to many of the same energy market dynamics playing out nationally.

First, natural gas prices have plummeted over the last decade, fueled by advancements in hydraulic fracturing technology. Shale gas production has ramped from less than 5.0 Bcf/d in 2005 to more than 70.0 Bcf/d this year—a 1,400% increase. Although Arizona does not have shale resources under development, average annual natural gas prices are down dramatically and align relatively neatly with national trends.

Average Annual Citygate Natural Gas Prices in Arizona, New Mexico and Nationally, 2000-2018 ($/tcf)[33]



Second, the cost of utility-scale renewable capacity has declined remarkably over the last several years. According to the latest levelized cost of energy (LCOE) analysis—a measure of the all-in costs of various generating technologies—from international financial advisory Lazard, new utility-scale wind and solar PV projects are less costly than a greenfield natural gas combined cycle plant and potentially cheaper than the short-run costs of existing coal capacity.[34] These cost estimates certainly seem to be applicable in Arizona, where in 2018 the Central Arizona Project

[33] EIA.

[34] Lazard's Levelized Cost of Energy Analysis, Version 13.0. https://www.lazard.com/perspective/lcoe2019

signed a long-term power purchase agreement for 50 MW of solar capacity at a levelized cost of $24.99/MWh.[35]

The economic advantages of renewable energy appear even more definitive when compared against Tucson Electric's reported cost of energy from Four Corners: nearly $80/MWh.[36]

Those two trends—coupled with compliance costs associated with the Obama administration's Mercury and Air Toxics Standards (MATS) rule—have catalyzed a remarkable shift in the US power generation fleet. Nearly 75.0 GW of coal-fired capacity (about 24% of the US generating fleet) retired between 2011 and 2018.

Notably, the shift away from coal-fired generation nationally and in Arizona may even accelerate in the coming years as regulators and policymakers move to more meaningfully address power sector greenhouse gas emissions. Although natural gas production and power sector consumption could be impacted by decarbonization measures, coal is likely to be the first to go based on its emissions intensity.[37]

VII. The Need for a Just Transition Away from Coal

The preceding analysis underscores the need to begin inclusive, proactive conversations about life after coal for communities that have relied on mining and coal-fired generation for their economic livelihoods. The Navajo Nation feels confident it can provide leadership in this critical moment as Arizona transitions to a renewables-powered electric system. The Navajo Nation is looking forward to the opportunity to continue to work with the Arizona Corporation Commission and the Southwest's utility companies to create a strong clean energy future.

To that end, it is essential for stakeholders across Arizona to lay the groundwork for a just transition away from coal.

Just transition is a relatively new, broad concept that applies differently depending on the sector being discussed.[38] In this case, a just transition would include the following tenets:

1. Coal-impacted communities should have clear, advanced notice on how electric utilities plan to manage the remaining life of their coal generating assets and when they are planning to retire them.
2. Coal communities should be provided financial resources for their historical contributions to economic development and to help transition into new, low-carbon work
3. Coal communities should have a seat at the table and decision-making power over how just transition funding is utilized

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[35] "Arizona Water Provider Approves Record-Low-Cost Solar PPA to Replace Coal." Greentech Media. https://www.greentechmedia.com/articles/read/arizona-water-provider-approves-lower-cost-solar-ppa-to-replace-coal

[36] Lazard LCOE v13.0 and Tucson Electric Power and UNS Electric, Inc., "Response to the Notice of Inquiry - Review, Modernization and Expansion of the Arizona Renewable Energy Standard and Tariff Rules and Associated Rules Docket No. E-00000Q-16-0289," April 23, 2018 at page 12.

[37] EIA. "How much carbon dioxide is produced when different fuels are burned?" 2015. https://www.eia.gov/tools/faqs/faq.php?id=73&t=11

[38] Natural Resources Defense Council. "We Need a Just Transition—Because We Should Abandon Coal, Not Coal Workers." https://www.nrdc.org/onearth/we-need-just-transition-because-we-should-abandon-coal-not-coal-workers

Several US states[39], utilities[40], the European Union[41], and individual member states[42] within the bloc have embraced the just transition framework and have begun developing exit and economic diversification strategies for their coal communities.[43] Arizona has an opportunity to join their ranks and to best prepare coal communities for the clean energy future.

VIII. Recommendations for Achieving a Just Transition for the Navajo Nation and Other Coal Communities

The following is a set of recommendations that Tucson Electric, other Arizona electric utilities and the Arizona Corporation Commission should consider as part of a just transition away from coal power generation on the Navajo Nation.

1. Tucson Electric should provide at least $61.8 million in initial just transition funding based on its combined peak ownership shares in NGS, SJGC and FCPP.

As recently as 2017, TEP had a combined 618 MW of nameplate capacity across the three Navajo coal plants. We suggest TEP provide an initial outlay of $61.8 million—$100,000 per megawatt of ownership—to help fund economic diversification and resilience efforts on the Navajo Nation and in nearby communities.

This is a reasonable seed funding floor. For example, New Mexico's Energy Transition Act earmarks $40 million in funding for worker retraining, wage replacement and economic support for power plant and mine workers associated with San Juan Generating Station.[44] That equates to about $80,000 per megawatt of ownership held by Public Service Corporation of New Mexico—the plant's majority owner—in SJGS.[45]

Given the immense environmental and public health costs associated with the three power plants and the sudden closure of half of SJGS in 2017, a higher per megawatt rate is likely justified. This is a workable standard that can be applied to other Arizona utilities with historical ownership of the three Navajo power plants.

This represents a minimum compensation threshold. TEP and the ACC should consider much loftier, sustained funding goals to ensure coal communities are properly supported during the transition away from coal power.

To minimize the rate impact, seed funding should entirely come from shareholders of its parent companies, UNS or Fortis, rather than TEP ratepayers. That should be easily achievable: over the

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[39] Colorado, New Mexico

[40] Salt River Project, Puget Sound Energy

[41] EU Just Transition Fund; see Natural Resources Defense Council.

[42] Germany and Spain.

[43] Natural Resources Defense Council.

[44] Western Resource Advocates. "The Energy Transition Act Makes New Mexico a National Leader in Clean Energy." March 2019. https://westernresourceadvocates.org/blog/the-energy-transition-act-will-make-new-mexico-a-national-leader-in-clean-energy/

[45] Kelly O'Donnell. "Tax and Jobs Analysis of San Juan Generating Station Closure." January 2019. Pg. 4. https://www.nmvoices.org/wp-content/uploads/2019/01/San-Juan-Tax-Study-report.pdf

last three years, TEP alone reported an average net income of $163 million.[46] Parent company Fortis is targeting annual stockholder dividend growth of 6%, suggesting financial flexibility to support just transition planning and funding.[47]

At most, half the just transition seed funding should come from ratepayers for the uncompensated benefits they received from the capacity and energy services provided by the three Navajo coal plants.

2. **Tucson Electric should provide technical support to and participate in just transition planning groups comprised of members of the Navajo Nation and other stakeholders from northeastern Arizona and northwestern New Mexico.**

Stakeholder groups of affected constituencies—for example, Navajo Nation leaders, power plant and mine workers, local environmental activists, utility planners, county government officials and Chapter House representatives—should be given authority over how just transition funding is utilized to ensure democratic control over the region's economic future.

TEP's experience with stakeholder proceedings and power sector expertise should be brought to bear to assist affected communities develop alternative economic development strategies.

3. **Tucson Electric should support the development of NGS-related water infrastructure**

The Navajo Tribal Council agreed to allow the consumptive use of 34,100 acre-feet/year of water from Arizona's Upper Colorado River Basin allocation for operations at Navajo Generating Station.[48] It has been widely acknowledged that Arizona's allocation of 50,000 acre-feet/year was for the use and benefit of the Navajo Nation, hence the need for the developers of NGS to seek Navajo permission for the use of this water. Notwithstanding this acknowledgement, the Nation's rights to the use of this water has never been formally quantified or adjudicated.

As noted above, approximately 40% of the households on the Navajo Nation must haul their potable water. This is unacceptable. Water is a fundamental precondition to life. More practically, the lack of formally quantified water rights significantly inhibits our ability to attract investments to pursue alternative economic development strategies. TEP should, in concert with other former NGS owners, provide technical and legal support to the Navajo Nation to help secure the quantification of those water rights.

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[46] Latest TEP 10-K filing. Pg 15. https://www.sec.gov/Archives/edgar/data/100122/000010012219000004/tep10k12312018.htm#sAF3BA5CEF895590884C516924BBADEF4

[47] Fortis 2018 Annual Information Form, pg. 7. https://www.sec.gov/Archives/edgar/data/1666175/000166617519000011/a991aif2018.htm

[48] Navajo Tribal Council. "Resolution of the Navajo Tribal Council Approving the Allocation of 34,100 Acre-Feet of Water from the Upper Colorado River Basin and Promising to Limit the Navajo Tribe's Claim for Water from the Upper Colorado River Basin to 50,000 Acre-Feet Per Year." 1968. https://www.nnwrc.navajo-nsn.gov/Portals/0/Files/Upper%20Basin%20Colorado%20River/1968-12-11%20NNC%20Rsl-CD-108-68%20Apprve%2034100%20afy%20for%20NGS.pdf

Additionally, TEP and other former NGS owners should contribute to an infrastructure development fund to support the development of the infrastructure necessary to deliver water to LeChee and areas around Navajo Generating Station. Such infrastructure is essential if economic development in the area most impacted by the NGS closure is to occur.

We estimate the proposed Western Navajo Pipeline Phase I water/wastewater infrastructure projects will require at least an additional $38 million and $55 million on top of the approximately $25 million the Navajo Nation has already contributed to design and build it; TEP's contribution should be proportional to the utility's ownership stake in NGS.

4. **Tucson Electric should sign electricity and Renewable Energy Credit (REC) offtake agreements from Navajo-owned, utility-scale renewable projects.**

The Navajo Nation has significant wind and solar resource potential and, as part of the NGS closure agreement, access to 500 MW of capacity on the 500 kV transmission lines that previously carried power from the plant to downstate communities. The Navajo Nation is eager to pursue renewables projects as part of a new long-term economic development strategy.[49]

The Arizona Corporation Commission should require regulated utilities to provide technical support for, and eventually become off takers from, utility-scale renewables projects on the Navajo Nation.

The specific procurement target could be structured in several different ways. For example, TEP and other utilities may be required to procure from the Navajo Nation at least as many megawatts of utility-scale renewable capacity as their peak coal capacity share. Alternatively, there could be an initial procurement requirement that grows over time. The Arizona Corporation Commission could consider mandating a portion of all renewable energy credits used to comply with the state's Renewable Portfolio Standard be procured from Navajo-sited facilities.

Regardless of the specific capacity goal, there are several features that should be mandatory:

- New renewable projects should be majority Navajo-owned and eventually Navajo-operated.
- Procurement agreements should prioritize Navajo employment opportunities, in accordance with the Navajo Preference in Employment Act (15 N.N.C. § 601 et seq.) and the Navajo Business Opportunity Act (5 N.N.C. § 201 et seq.), and include provisions supporting capacity building for Navajo energy officials so the Tribe can manage the facilities and subsequent procurements for utility-scale renewable projects.
- Offtake agreements should be structured to provide consistent, long-term revenue to the Navajo Nation to replace lost income from coal mining and power generation operations.
- A portion of the transmission capacity freed up by the retirement of San Juan and Four Corners should also be allocated to the Navajo Nation.

[49] Office of the President and Vice President of the Navajo Nation. "Nez-Lizer proclaim clean renewable energy development as the Navajo Nation's top energy priorities." April 2019. https://www.navajo-nsn.gov/News%20Releases/OPVP/2019/apr/FOR%20IMMEDIATE%20RELEASE%20-%20Nez-Lizer%20proclaim%20clean%20renewable%20energy%20development%20as%20the%20Navajo%20Nations%20top%20energy%20priority.pdf

5. **Tucson Electric should provide additional electrification assistance to the Navajo Nation.**

The declining cost of off-grid solar and energy storage resources makes it less expensive than ever to provide universal electricity access on the Navajo Nation for the first time. Electricity access is a precondition to sustainable economic development and has been shown time and time again to significantly raise standards of living.

Collectively, TEP and other former and current owners of the three Navajo coal plants have the financial and technical ability to assist the Navajo Nation provide universal access to electricity for every Navajo household.

Specifically, we propose an electrification matching fund, supported by TEP and other Arizona utilities. One half of the fund should go to the Light Up Navajo program, and the other half earmarked for the Nation to use on home wiring and/or transmission projects at their discretion. The Navajo Nation will match funds internally when funding is available.

TEP should also provide grid planning and energy modeling services to the Navajo Nation to help cost effectively manage load growth and ensure a reliable, resilient power grid managed by the Navajo Tribal Utility Authority.

6. **The Arizona Corporation Commission should implement rules to govern the process of closing coal and other economically impactful energy plants**

At this time, there are no rules requiring that utilities provide notice to communities when they intend to their close power plants, even when those power plants are the basis for local economies. Had there been longer term notification of the NGS closure, for example, the Nation and other impacted economies may have had the opportunity to work with relevant entities to secure a stronger understanding of potential social and economic impacts, and to find ways to address those impacts.

The Nation recommends the ACC require utilities to provide a five-year advanced notice of any planned power plant closure. We also recommend the ACC require both a comprehensive economic and social impact study to assess how plant closures will affect local communities. Affected stakeholders should be allowed to choose the entity that performs said study. These measures will ensure communities are given an adequate opportunity to prepare for potential foundational shifts in the local economy. They are also likely to enhance relationships between local communities and electric utilities.

7. **The Arizona Corporation Commission should initiate a docket proceeding on a just transition for coal communities**

The Navajo Nation is only one of several Arizona communities that has historically relied on coal-related revenues. As the energy transition unfolds, utilities will likely make the economically rational decision to retire their remaining coal generating capacity. Stakeholders need to begin the complex, inclusive discussions about the future of coal as soon as possible to minimize economic disruptions and maximize opportunities.

A formal docket proceeding would afford this issue the importance it deserves and allow for thoughtful, thorough discussions to inform just and reasonable policies to move beyond the fossil fuel economy. The Nation believes that this docket would be the one method of addressing such policy ideas like securitization of coal plants, as a means of addressing the economic impacts of closures.

IX. Conclusion

The Navajo Nation appreciates this opportunity to provide input into the Tucson Electric Power Company's rate case. This case marks an opportunity for the Arizona Corporation Commission to begin addressing a multitude of needs in coal-impacted communities arising from the closure of the Navajo Generating Station. Today, we have an opportunity to channel our collective efforts into a new era of renewable energy, which will provide greater potential for a robust economy and healthy communities in the Navajo Nation, the State of Arizona, and beyond.

The Navajo Nation urges the ACC to consider how to justly address the needs arising from the energy transition that is under way. We believe that a Just Transition would begin with the proposals outlined in these comments. The Nation also looks forward to a long partnership with the ACC, other stakeholders and state utilities in achieving these objectives.

Sincerely,

Jonathan Nez, *President*
THE NAVAJO NATION

Myron Lizer, *Vice-President*
THE NAVAJO NATION